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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/820,640	03/30/2001	Tsutomu Yamazaki	018775-823	3564

7590

08/24/2004

Platon N. Mandros
BURNS, DOANE, SWECKER & MATHIS, L.L.P.
P.O. Box 1404
Alexandria, VA 22313-1404

EXAMINER

LU, TOM Y

ART UNIT	PAPER NUMBER
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2621

DATE MAILED: 08/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/820,640	Applicant(s) YAMAZAKI, TSUTOMU	
	Examiner Tom Y Lu	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2 and 4-9 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-2 and 4-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date: ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Response to Amendment

1. The amendment and written response filed on June 23, 2004 has been entered.
2. Claim 3 is cancelled.
3. Claims 1, 8 and 9 are amended.
4. Claims 1-2 and 4-9 are pending.

Response to Arguments

5. Applicant's arguments, see Remarks, pages 4-5, filed on June 23, 2004, with respect to Claims 1-9 have been fully considered and are persuasive. The rejection under 35 U.S.C. 112, first paragraph of claims 1-9 has been withdrawn.
6. Applicant's arguments with regard to the rejection under 35 U.S.C. 102 (b) of claims 1-9 filed on June 23, 2004, have been fully considered but they are not persuasive.

The Hiroyuki Reference:

Applicant argues Hiroyuki reference does not disclose "a second converter operates to convert bit map data of pixels in the input bit map image data around the line image of the line image region according to a side where a pixel in the pixels exists relative to the line image region defined by the vector data and according to the bit map data of pixels around the line image region", therefore, the rejection of independent claims should be traversed. Upon further review of specification, and in light of applicant's arguments, the examiner respectfully disagrees for the following reasons. First of all, the claim language of "a second converter which converts bit map data of pixels in the input bit map image data around the line image of the line image region on according to a side where a pixel in the pixels exists relative to the line image region

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defined by the vector data and according to the bit map data of pixel around the line image region” appears to be circular, which the functionality of the second converter with regard to what format of “the bit map data of pixels in the input bit map image data” is converted to is still unclear despite of explanation submitted in the Remarks dated June 23, 2004. In addition, as the examiner understands, based upon the explanation provided by the applicant and the further review of specification, the second converter converts “bit map data of pixels in the input bit map image data around the line image” to “bit map data” (specification, page 9, line 17, applicant discloses “figure 10 shows an example of bit map image after the embedding”, and applicant in remarks, page 5, lines 9-10, explains “figure 10 is an exemplary result of such conversion”). If that is the case, the claim language of “a second converter which converts bit map data of pixels in the input bit map image data around the line image of the line image region on according to a side where a pixel in the pixels exists relative to the line image region defined by the vector data and according to the bit map data of pixel around the line image region” is essentially meaningless. Since the bit map data format of the image is remained unchanged, the conversion performed by the second converter is useless, and such functionality of having the data format unchanged is included in Hiroyuki’s thinning process and approximation function as described in paragraphs [0033] and [0039], respectively.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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7. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to Claim 1, see explanation in Paragraph 6 above.

Claims 2-7 are rejected for being dependent upon Claim 1.

Claims 8-9 are rejected for the same reason given in Claim 1.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Hiroyuki et al (Japanese Publication Number 05-020495, a copy of translation was mailed in the previous office action dated March 23, 2004).

- a. Referring to Claim 1, Hiroyuki discloses a first converter which extracts a line image region in input bit map image data and converts the line image to vector data (a straight line, the polygonal line and a curve in paragraph [0039] are the claimed “line image”; graphic data of representation points are the claimed “vector data”; image data read in paragraph [0021] is the claimed “bit map image data”); a second converter which converts bit map data of pixels in the input bit map image data around the line image of the line image region according to a side wherein the pixel exists relative to the line image defined by the vector data

(paragraph [0039], approximation function, and paragraph [0033], thinning process teaches selecting the pixel exists relative to the line image) and according to the bit map data of pixels around the line image region (paragraph 0058], Hiroyuki teaches the image data, which is bit map data herein, around the line image data as shown in figure 11 remains as it is. Also see explanation in paragraph 6 above); and a composer which composes the vector data of the line image obtained by said first converter and the bit map data converted by said second converter (paragraph [0002], Hiroyuki teaches after each conversion, the vector data and the bit map data are re-compounded).

- b. Referring to Claim 2, Hiroyuki discloses further comprising a character recognizer which recognizes characters in the input bit map data and converts the recognized characters to character codes, wherein said composer composes character data based on the character codes with the vector data and the bit map data (paragraph [0046]).
- c. Referring to Claim 4, Hiroyuki discloses wherein the vector data obtained by said first converter and the bit map data converted by said converter are stored separately in a storage device, and said composer composes the bit map data and the vector data stored in the storage device (paragraphs [0039] and [0058], Hiroyuki teaches the vector data and the bit map data are stored separately in PMEM3 or IMEM4).

- d. Referring to Claim 5, Hiroyuki discloses wherein the pixels around the line image region are pixels far from the line image by a predetermined distance (paragraphs [0058] and [0033], thinning process).
- e. Referring to Claim 6, Hiroyuki discloses wherein the distance is along a direction perpendicular to the line image (paragraph [0033]).
- f. Referring to Claim 7, Hiroyuki discloses wherein said image processor further comprises an image reader device which reads a document and provides the input bit map data of the document to said first and second converters (paragraph [0021]).
- g. With regard to Claim 8, all the limitations are addressed in Claim 1.
- h. With regard to Claim 9, the only difference between Claim 1 and Claim 9 is Claim 9 calls for additional feature of a computer readable storage medium, Hiroyuki teaches using a computer to implement his system, which inherently contains such storage medium.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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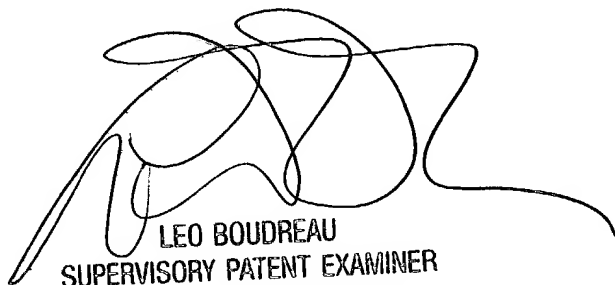
CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom Y Lu whose telephone number is (703) 306-4057. The examiner can normally be reached on 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo H Boudreau can be reached on (703) 305-4706. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tom Y. Lu



LEO BOUDREAU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600